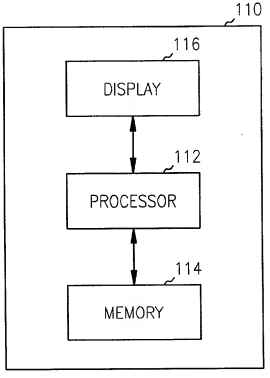
110
116
DISPLAY
112
PROCESSOR
114
MEMORY

FIG. 1

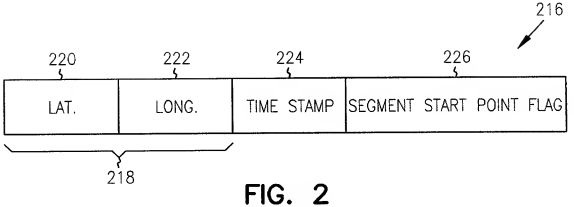
216
220
222
224
226
LAT.
LONG.
TIME STAMP
SEGMENT START POINT FLAG
218

FIG. 2

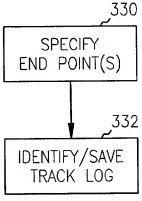
330
SPECIFY END POINT(S)
332
IDENTIFY/SAVE TRACK LOG

FIG. 3

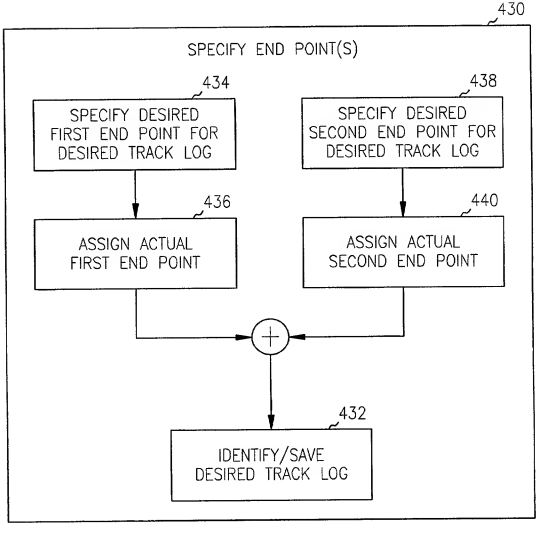
430
SPECIFY END POINT(S)
434
SPECIFY DESIRED FIRST END POINT FOR DESIRED TRACK LOG
438
SPECIFY DESIRED SECOND END POINT FOR DESIRED TRACK LOG
436
ASSIGN ACTUAL FIRST END POINT
440
ASSIGN ACTUAL SECOND END POINT
432
IDENTIFY/SAVE DESIRED TRACK LOG

FIG. 4

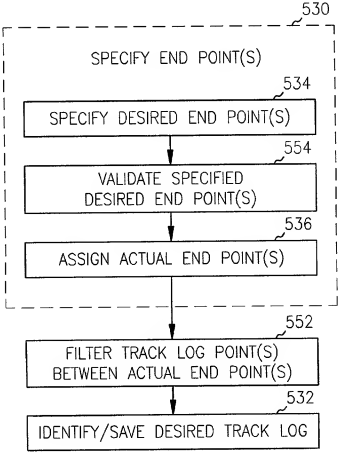

FIG. 5

Filed: 05/17/2011

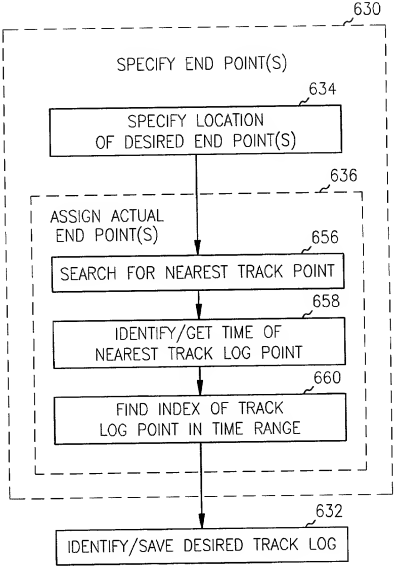

FIG. 6

1007155.01 : 09902

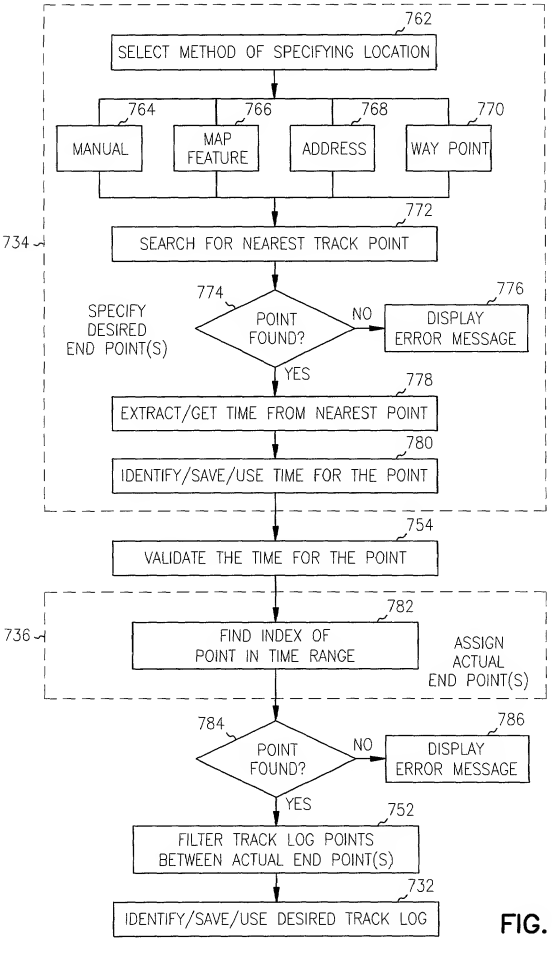
762
SELECT METHOD OF SPECIFYING LOCATION
764
MANUAL
766
MAP FEATURE
768
ADDRESS
770
WAY POINT
772
734
SEARCH FOR NEAREST TRACK POINT
774
SPECIFY DESIRED END POINT(S)
POINT FOUND?
NO
776
DISPLAY ERROR MESSAGE
YES
778
EXTRACT/GET TIME FROM NEAREST POINT
780
IDENTIFY/SAVE/USE TIME FOR THE POINT
754
VALIDATE THE TIME FOR THE POINT
782
736
FIND INDEX OF POINT IN TIME RANGE
ASSIGN ACTUAL END POINT(S)
784
POINT FOUND?
NO
786
DISPLAY ERROR MESSAGE
YES
752
FILTER TRACK LOG POINTS BETWEEN ACTUAL END POINT(S)
732
IDENTIFY/SAVE/USE DESIRED TRACK LOG

FIG. 7

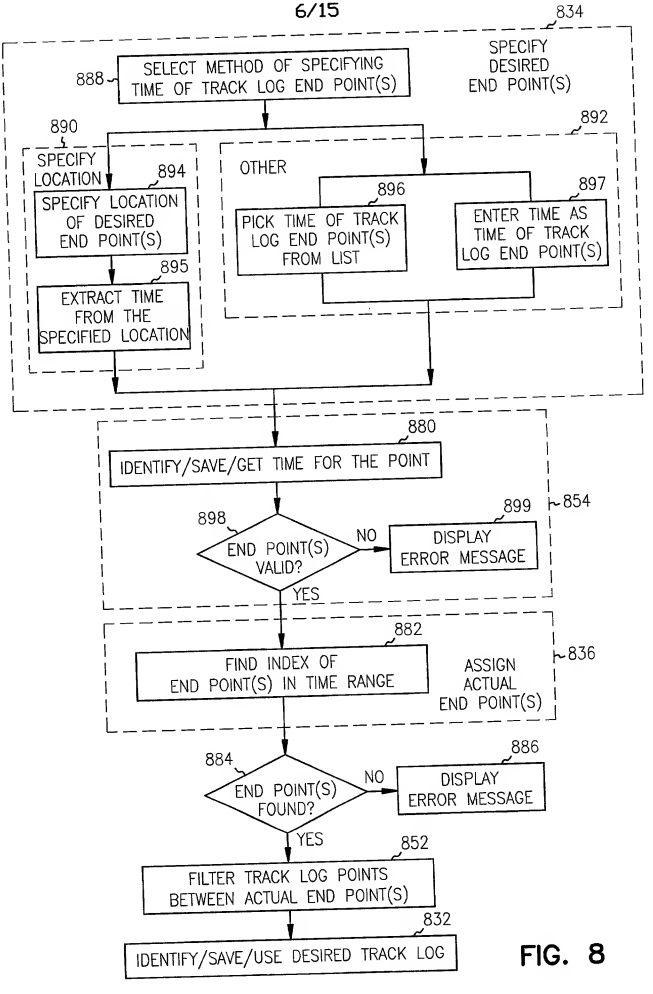
834
SPECIFY DESIRED END POINT(S)
888
SELECT METHOD OF SPECIFYING TIME OF TRACK LOG END POINT(S)
890
892
SPECIFY LOCATION
894
SPECIFY LOCATION OF DESIRED END POINT(S)
895
EXTRACT TIME FROM THE SPECIFIED LOCATION
OTHER
896
PICK TIME OF TRACK LOG END POINT(S) FROM LIST
897
ENTER TIME AS TIME OF TRACK LOG END POINT(S)
880
IDENTIFY/SAVE/GET TIME FOR THE POINT
898
END POINT(S) VALID?
NO
899
DISPLAY ERROR MESSAGE
854
YES
882
FIND INDEX OF END POINT(S) IN TIME RANGE
ASSIGN ACTUAL END POINT(S)
836
884
END POINT(S) FOUND?
NO
886
DISPLAY ERROR MESSAGE
YES
852
FILTER TRACK LOG POINTS BETWEEN ACTUAL END POINT(S)
832
IDENTIFY/SAVE/USE DESIRED TRACK LOG

FIG. 8

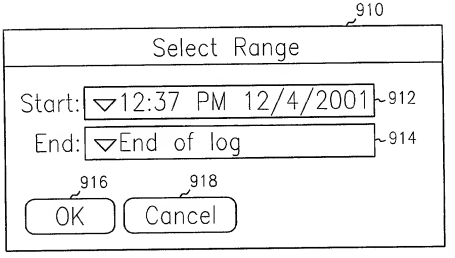

FIG. 9

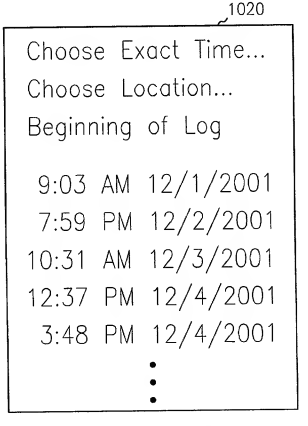

FIG. 10

Express Mail No. EV 071550 095 US

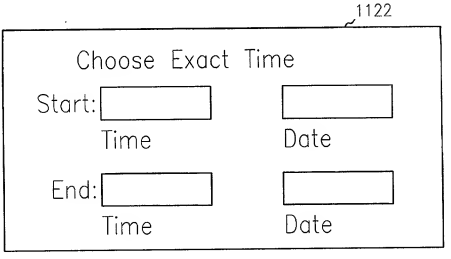

FIG. 11

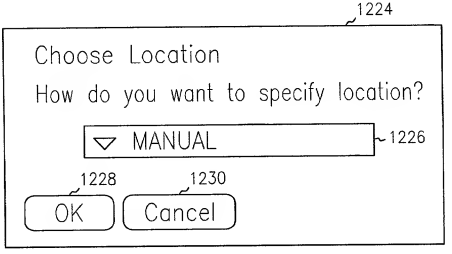

FIG. 12

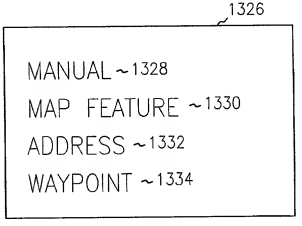

FIG. 13

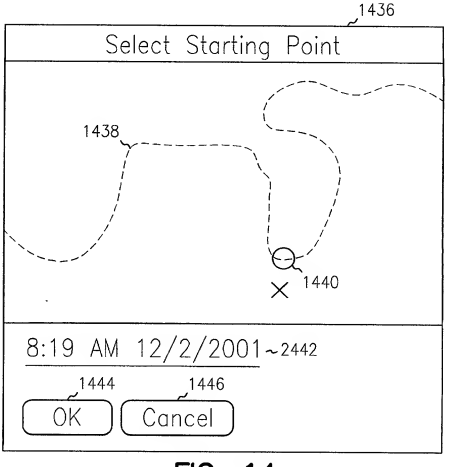
1436
Select Starting Point
1438
1440
8:19 AM 12/2/2001
2442
1444
1446
OK
Cancel

FIG. 14

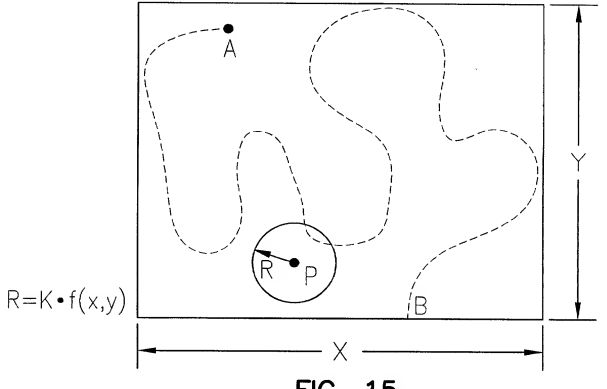
A
R
P
B
Y
X
R=K•f(x,y)

FIG. 15

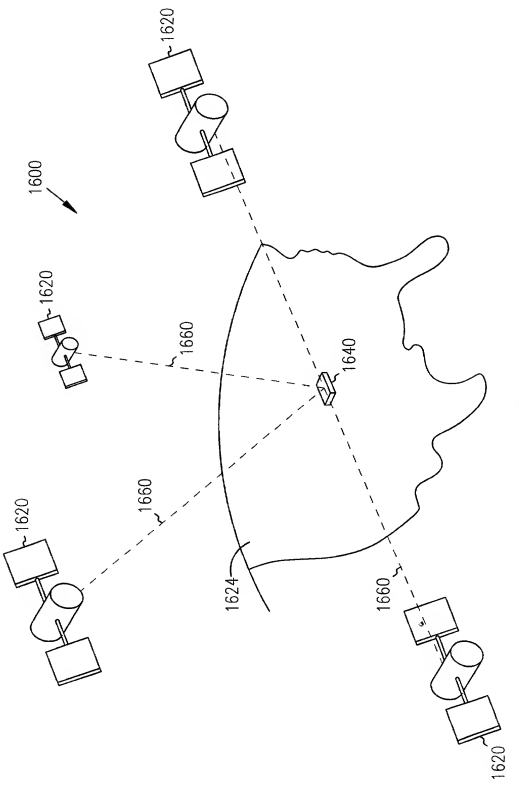

FIG. 16

20080154907

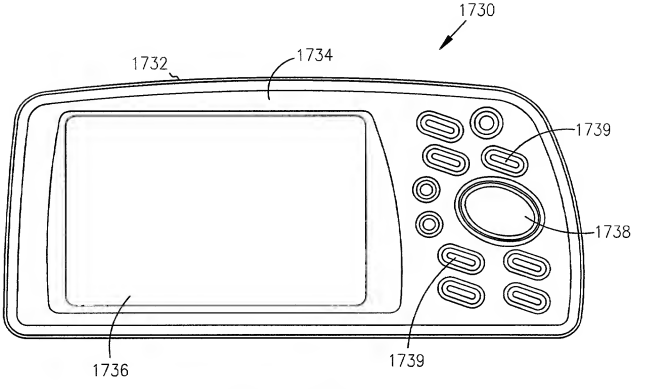

FIG. 17A

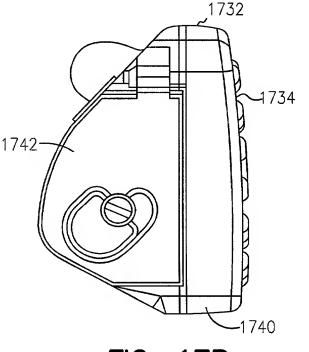

FIG. 17B

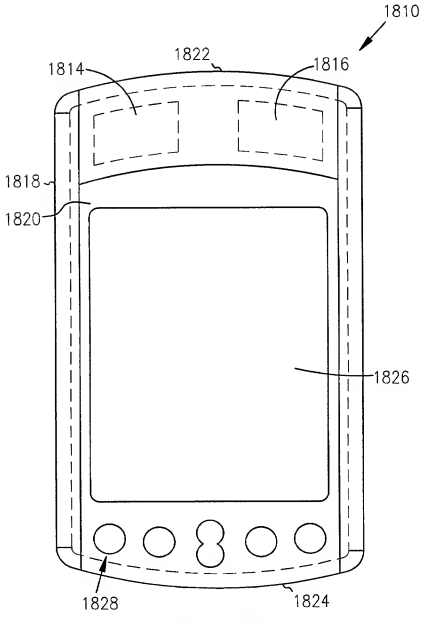

FIG. 18A

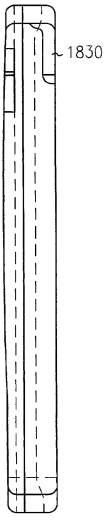

FIG. 18B

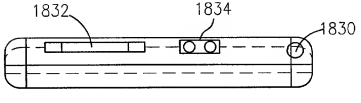

FIG. 18C

20050211.0551.7001

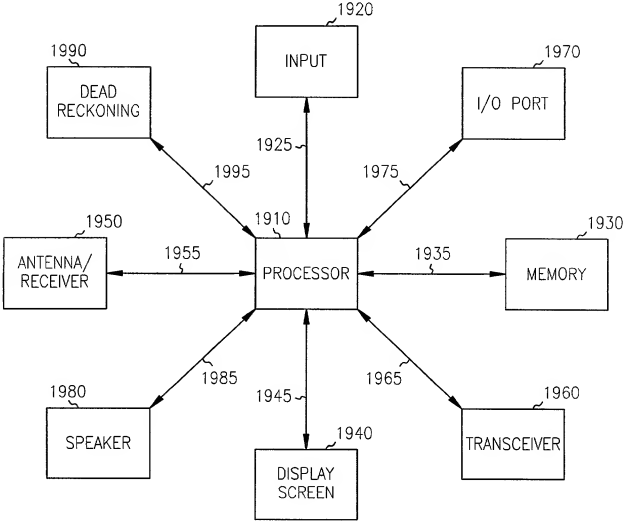
1920
INPUT
1990
DEAD RECKONING
1970
I/O PORT
1925
1995
1975
1950
1910
1930
ANTENNA/ RECEIVER
1955
PROCESSOR
1935
MEMORY
1980
1985
1945
1965
1960
SPEAKER
1940
DISPLAY SCREEN
TRANSCEIVER

FIG. 19A

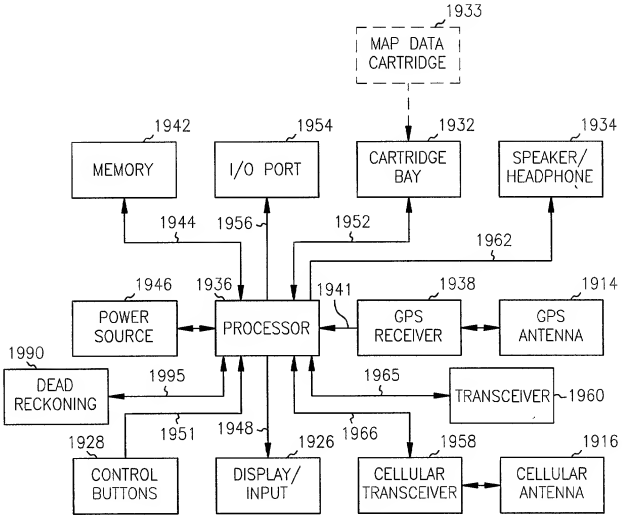
1933
MAP DATA CARTRIDGE
1942
MEMORY
1954
I/O PORT
1932
CARTRIDGE BAY
1934
SPEAKER/ HEADPHONE
1944
1956
1952
1962
1946
POWER SOURCE
1936
PROCESSOR
1941
1938
GPS RECEIVER
1914
GPS ANTENNA
1990
DEAD RECKONING
1995
1965
TRANSCEIVER
1960
1928
CONTROL BUTTONS
1951
1948
1926
DISPLAY/ INPUT
1966
1958
CELLULAR TRANSCEIVER
1916
CELLULAR ANTENNA

FIG. 19B

2000
2016
NAVIGATION DEVICE
2020
TRANSMITTER
2022
RECEIVER
COMMUNICATIONS CHANNEL
2018
2002
SERVER
2004
PROCESSOR
2006
MEMORY
2008
TRANSMITTER
2010
RECEIVER
2014
2012
MASS DATA STORAGE

FIG. 20